

REMARKS

Claims 1-7 and 9 are currently pending. Claim 1 has been amended to incorporate the limitation of claim 8 and further correct the omission of the word "strip" on line 3, and thereby TO overcome the formal rejection under 35 U.S.C. §112 (1st ¶) as discussed in item 8 on page 3 of the Official Action. Claim 8 has been deleted. Claim 5 has been amended to more clearly articulate the invention claimed therein and thereby to overcome the Examiner's formal rejection of said claim under 35 U.S.C. §112 (1st ¶) as discussed in item 9 on page 4 of the Official Action. Lastly claim 9 has been amended to clearly claim the inventive subject matter and specifically to include a tension control element for controlling the roll nip which operates as a function of tension in the metal strip.

By this amendment, Applicants have amended Figure 1 of the drawings to reflect that it is "prior art".

The Examiner has objected to the specification under 35 U.S.C. §1.71 for the reasons set forth in item 2 on page 2 of the Official Action, not herein repeated. The meaning of Applicants exemplary embodiment of the tension-monitoring means disclosed on page 7 of the specification "as a tension controller with preceding dead band" will be supplied via a supplemental paper. Further, Applicants contend there is no confusion in paragraph 10 of the Specification, since Figure 1 is clearly defined as "a known control arrangement ..." Lastly, Applicants contend that the disclosure of the present invention is perfectly clear and that strip velocity is set independently of tension in the metal strip. The word "traction" does not appear in the specification. That the

word "traction" appears in the English language abstract of the German counterpart application (DE 199 33 239) can only be explained on information and belief as a translation error by the third party who prepared the English language abstract. What is important, however, is that the German language text of the application DE 199 33 239 refers to setting the velocity independently of the tension in the metal strip. Accordingly, Applicants respectfully traverse the Examiner's objection in item 2 of the Official Action.

The Examiner has rejected claims 1-9 under 35 U.S.C. §112 (1st ¶) for the reasons discussed in item 4 on page 3 of the Official Action, and not herein repeated. Applicants respectfully traverse this rejection. There is no requirement that a specification disclose all ways of practicing an aspect of an invention here the ways in which the velocity of the metal strip can be set. The "elongation" method disclosed on page 7 (paragraph [0014] of the specification) is as stated "a preferred embodiment". But claims are not limited to preferred embodiments unless specifically stated as such. Moreover, the Examiner has not offered any evidentiary basis for the position that one of ordinary skill in the art would not understand other ways for setting the velocity of the metal strip independently of the tension of the metal strip.

The Examiner has also rejected claims 1-9 under 35 U.S.C. §112 (1st ¶) for the reasons set forth in item 5 at page 3 of the Official Action and not herein repeated. First, Applicants note that only claims 6 and 7 contain the recitation "correct the set value of the velocity of the metal strip ...". That said, Applicants respectfully traverse the rejection under 35 U.S.C. §112. What is claimed in claims 6 and 7 is fully supported by the broad teaching in the Specification, as well as by the preferred embodiment disclosed in NY02:463312.1

paragraph [0012]. Clearly, not all ways for accomplishing the claimed limitation are required to be disclosed. Moreover, the Examiner has not provided any evidence that the present invention would not be fully enabling to one of ordinary skilled in the art.

The Examiner's rejection of claims 1, 5, 6, and 7 under 35 U.S.C. §112 (2nd ¶) for the reasons discussed in items 8, 9 and 10 on pages 3 and 4 of the Official Action have been addressed in the amendments discussed at the out set of the remarks.

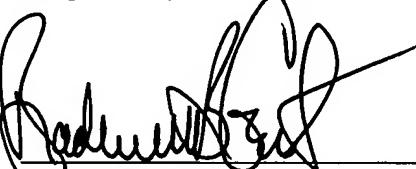
On the merits, the Examiner has rejected claims 1-9 under 35 U.S.C. §102(b) as anticipated by and alternatively under 35 U.S.C. §103(a) as obvious over any one of the following references: U.S. Patent No. 5,054,302 (Yamashita et al.), FR 3,201,142 (Prigent), and GB 1,301,532 (Kain). The argument advanced by the Examiner in support of these grounds for rejection is set forth in item 13 on page 4 of the Official Action and not herein repeated. Applicants respectfully traverse on the §§102/103 grounds for rejection.

The process steps and device disclosed in the Prigent and Kain are, without more, not capable of being used in connection with "skin-pass mills", which produce a well-defined, high-precision surface and deep-draw properties on the metal strip. Because of close tolerances and skin pass grades, the control of a skin pass rolling mills is not comparable to the control of other rolling mills. Since neither Prigent nor Kain discloses or suggests the applicability of the invention to skin pass rolling mills, Applicants are of the opinion that the references are not relevant, i.e. neither anticipates the present invention nor renders it obvious.

Further in the present invention, the use of a velocity control which is independent of tension, prevents mill hysteresis from adversely affecting the control. Additionally, the tension-dependent setting of the roll nip assures a constant tension function across the nip (gap) and a high degree of precision over all upon attainment of the desired strip rugosity, even with varying properties of material or strip thicknesses. Applicants are unable to find any reference to the control concept according to the present invention, particularly in view of the new set of claims, in any of the applied citations, i.e. Yamashita et al., Prigent or Kain, either alone or taken collectively.

For the reasons discussed above, and in view of the amendments made herein, Applicants respectfully request reconsideration and allowance of the pending claims.

Respectfully submitted,



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